



## GARDENING WITH NANCY...

# Let's Get Growing ... What To Plant

Last month we discussed making raised beds either with materials or just raking soil into 4' X 12' or 4' X 25' beds. These measurements make it easier to figure amounts of fertilizer per bed. If you are doing a wholly organic garden then adding 2 or 3 wheelbarrow loads or bags of organic compost each year will get the garden off to a quick boost as the soils and air warm up.

A good reference for growing in Central Oregon can be found on line at the Oregon State University Extension Service's web site. (<http://extension.Oregonstate.edu/catalog> then select gardening, then vegetable, then Eastern Oregon Vegetable Gardening Guide) Under gardening they have an article: Eastern Oregon Vegetable Gardening Guide which can be downloaded or simply read on line or you can purchase it as well as Sustainable Gardening, Oregon-Washington Master Gardening Handbook both of which you can pick up from the extension office in Redmond. The Vegetable guide is listed as \$1.50 and the book is listed at \$30.00.

I will be sharing from my experience things I think grow best in our region, and I will be incorporating some of the Extension Service's ideas, however their publications are too vast to cover in this article.

When you select seeds to plant several things will help you be more successful. One is to consider the growing season, 90 days (if you are lucky) in the Bend area to 200 days in the Hermiston area. So your individual growing season will determine which seeds to select. The Extension Service indicates that our cool nights will also impact the maturity of what you select. For instance, a 65 day corn in Central Oregon may take 80 days to mature. A little later we will discuss some ways to extend the growing season in your area.

Some vegetables sure to give you success will be cooler crop items like lettuce, onions, cabbage, cauliflower, kohlrabi, broccoli, peas, carrots, beets, chard, spinach, garlic, leeks, radishes, and potatoes. Others such as corn, melons, cucumbers, tomatoes, peppers and such can have success with some specific techniques to give them protection and keep the heat up around the plant in the cool Central Oregon evenings.

Peas can be planted from late April to late May and they will generally cope with the weather pretty well. A good friend of ours and avid gardener Ivan Eastwood MD says he believes that you could plant your peas the middle of April, first of May or the end of May and you are going to harvest them around the 4th of July. We have found that to be about right. So as a general rule, I will plant peas around the 1st of May.

I like Little Marvel Bush peas, which grow about 18" high, and I broadcast them thickly in one whole bed. They will grow up and lean on each other and you will eliminate weeding of the bed and staking of the plants. Peas do not need additional fertilizer but do benefit from a legume inoculants. Not all gardening centers

carry inoculants any more but do ask especially if you live in the cooler higher elevations. I would check with Round Butte Seed or Redmond Greenhouse or Landsystems. Be sure to plant your peas as deep as the seed is big. Moisten the soil after planting and then I will lightly dust the top of the bed with straw or grass clippings. Avoid deep mulch, all you want to do is help the moisture stay constant until the peas sprout. You will have to water lightly until they sprout to keep the soil moist and the new sprout from drying out.

About the same time of year, I plant potatoes, and onions. Potatoes can be planted in a bed in an eighteen inch pattern, I start with two hills, one on each side of the 4' bed, then go 18" to the middle of the bed and plant one, then back to the outside of the bed 18" away and plant two more one on each side.

This will leave enough room and soil between plantings to hill up the leaves as they start to emerge. You should keep pulling dirt to the plant to provide substantial hilling as this is where the potatoes will develop. If you do get a frost, it will set them back but not destroy the planting.

With onions, you can buy onion sets at garden centers and nurseries as well as hardware stores. I plant two kinds of onions, white and red sets. Later I plant Walla Walla seed for using as green onions and leave a few to mature. Sweet onions do not store as well as regular onions. When I plant onions, I like to cover the planted area with row cover or garden blanket to protect them from onion maggot fly. I leave the blanket on until they are quite mature, but remove it for watering. I let onions get almost dry before watering heavily again, but you don't want them to wilt. Onions like well drained soil and not heavily composted. You can also grow bunching onions from seed for fresh green onion eating, and I like to plant a few of those and a few Walla Walla seeds every few weeks, tucking them in to open spots in any bed.

Around mid April I will start seeds indoors for cabbage, cauliflower, kohlrabi, and broccoli. I usually set them out about 4-6 weeks later. If you do not have a spot to start them indoors watch for new plants at garden centers. I like to lay down a thin row of lime around but not on the set when I transplant them. I have found it discourages the cut worms and seems to be well liked by the brassica family. I also start a second crop about July 1st for setting out around August 1st-15th. The first crop will do well until it gets very hot, the second crop will continue on until late September and in some areas until early November. The first to middle of May is a good time to start other seeds indoors if you plan to transplant them out later. (Squash, cukes, corn, watermelon, etc.) If you do not have a place to start them indoors then closer to your last frost you would seed them directly into the ground. I get by with seeding corn into the ground June 1 in Madras but did not

usually seed it into the ground until June 15 in Bend.

Lettuces are available in many varieties. I like Buttercrunch, Oak Leaf and Black Seeded Simpson the best. I seed a few into a bed every few weeks to get a steady supply until it gets too warm. Here too, I will add a little lime circle around the transplants but the direct seeded I don't bother with. Other lettuces that will do well are Great Lakes Head and various Romaines aka Cos. As the weather gets really warm, I will try to find partial shady spots in the garden to plant a few seeds to keep the supply steady. Late in the season I will plant seeds or transplants into raised beds against a south wall and cover them with sheep panels, and garden quilt. This will often give you fresh greens right up to December 1st or so.

Other vegetables I plant in May include beets, carrots, chard, spinach, Chinese cabbage, bok choy, leeks, and other cool weather vegetables. Actually spinach often sprouts in the garden where I let some go to seed well before May 1st. You can begin to experiment with plantings from your own observations from year to year. I often allow lettuce to go to seed also each fall as when it sprouts in the spring, I can tell soil temperatures are warming enough for cool weather crops to be planted. You can also buy a soil thermometer and watch the warming that way.

The Extension Service in the article on Easter Oregon Vegetable Gardening lists optimal temperatures for seeding certain vegetables. With carrots, beets and leeks, again I broadcast the bed thickly, and dust with a very light covering of grass clippings to help hold the moisture. Be sure moisture is constant until they sprout then refer to the watering chart below to manage water through out the growing season. These vegetables will have to be thinned as the season progresses but we use the thinned items for fresh eating. You can cook up beet greens, eat carrots raw or in salads and the same with small leeks/green onions. As leeks get larger you actually have to cut them down the middle to clean as they pick up sand as they grow.

You can plant garlic very early in the year, but it is best planted in the fall. Prepare the soil by roughing up the surface, and inserting a toe pulled from a full bulb. Be sure to plant it a foot apart or so and leave it until spring. Once the tips emerge, water regularly but let it almost go dry between waterings. It will be ready to harvest when the leaves fall over and start drying out. When harvested it should be dry, but do not leave out in the hot sun as it can cook if left too long. The Extension Service seems to recommend Elephant garlic but the Madras area grows garlic seed for Gilroy, California using regular garlic. So again experiment with what works for you.

When growing frost sensitive crops you need to be sure you are past your last frost before setting out starts. (Mid-June in the Bend area, and Mid-May in Madras/Prineville, but being in Central Oregon frosts can occur right up until the 4th of July). You can protect already planted items two ways when an unexpected frost looms. First develop a frost sensitive nose: if it is 40 degrees or below at 9 P.M., you will likely have a frost before dawn. Times to watch are late June, early July and anytime after a thunderstorm. Then start watching closely again Mid-August for sneaky frosts. If you can get through these two months (Late June and Mid-August) you will often extend the season to 90 days or more.

Once you have determined there is a risk you can 1. Cover the row with garden blanket, or 2. Set a sprinkler on a timer to sprinkle the areas of frost sensitive plants. The sprinkling should be done before dawn, the garden blanket can be laid down the evening before. Garden blankets are a spun fabric that will protect plants with out overheating once the sun comes up like you might get with clear plastic. Allow the sprinkler to run at least for an hour after sun up.

This means if you plant frost sensitive crops in close proximity you can cover them with one or two sprinklers. Timers can be obtained at hardware stores and garden centers. They run on batteries and I put fresh batteries in every spring so I don't get caught with expired batteries when it is cold or when I am gone.

I also use timers to water the garden on a schedule, so watering takes only a little monitoring not a daily chore. It is wise to check soil with a small hand trowel to be sure you are getting water deeply into your bed. Sometimes I find in the middle of the summer, I may have to flood a bed like carrots every 10 days or so. Again the OSU Extension service offers watering guidelines in their Eastern Oregon Vegetable Garden Guide.

Being in Madras I plant both short season and longer season corns, but I did garden in Bend for nearly 33 years and was successful using Early Sun Glow, a 65 day corn. It did sometimes take longer than 65 days and I often had to protect it from late June/early July frosts, and occasionally again in mid-August. You can plant corn two weeks apart for a longer harvest period but if you grow different varieties plant them in different parts of the garden so they don't cross pollinate, especially if you are trying to grow pop corn. In the raised bed I will grow three rows of corn, rather than broadcast the seed, or if planting traditional method will grow a double row side by side.

Tomatoes and peppers can be grown in Central Oregon, using a few heat conserving techniques. Wall O' Waters are a tool to protect newly transplanted tomatoes or peppers from frosts often as low as 20 degrees. I have found planting peppers and tomatoes against a south facing wall in a raised bed gives me the best crop. I also make my own wall of water by cutting the bottom out of a 5 gallon bucket. I fill milk or other half or 1 gallon jugs with water and let them warm in the sun. Transplant the tomato or pepper plant in the ground, set the 5 gallon bucket over it, and set the warmed jug down inside the bucket behind the tomato plant. If frost threatens you can also put old rugs or other old materials over the top of the bucket for the night. Then lift the covers the next day. I leave them in the bucket with the jug of water all year, as the warmed water will give off heat through the night and improve fruit setting and ripening. This way of protecting the plants is less laborious than filling the commercial Wall O' Waters and they last longer.

Cucumbers grow in a bed along a south facing wall, covering them with garden blanket if frost threatens. Cucumber are heavy feeders and like regular moisture. I like Straight Eight variety but find a number of others will do OK here. Pay attention to days to maturity. I grow vining cukes because the south facing wall protects them from cool nights, however when I lived in Bend I used bush varieties because they could be protected from frosts with garden

blankets or large cardboard boxes. Here in Madras the growing season is longer and there are fewer mid season frosts to worry about.

Green beans are another bush variety I prefer over vines. It is less work and if you broadcast in the bed thickly, they will shade the surface to eliminate weeding and reduce evaporative water. Blue Lake bush gives a good crop, and is easy to grow. They are a good bean for both eating and canning. Haricot Vert "maxibel" or other Haricot are great for fresh eating, stir fries or freezing. You can grow both but separate them so they don't cross pollinate.

Many folks prefer pole beans, but I have given up on them for two reasons, first they are more vulnerable to frost, and second they have to be staked or strung up on twine or poles. The raised beds provide more frost protection for bush beans and are high enough to pick pretty easily. It is nice if you have help canning/preserving all this stuff....and I have a roommate who does most of that. I am great at shelling peas and snapping beans though.

I have not covered all vegetables that will grow here but this is kind of an overview of the techniques that can be used to protect your plants and transplants. I favor broadcasting seed into the beds and then thinning the beds if necessary. As I have mentioned, this reduces weeding and water loss to evaporation. You will learn as you go, but there are lots of vegetables that will grow successfully in Central Oregon. Some will grow well one year and not the next but you plant them anyway in hopes of a good year. I also experiment from year to year with things that are marginal for our zones. It is fun to try, and sometimes you get lucky. For instance here in the Madras area, we get watermelons every year and cantaloupes some years.

Of course you do not have to use raised beds made of materials, you can rake together dirt to make a bed 4' x 12' or longer. You can also grow in double rows with out elevating the bed. I have not had as much experience with that in Central Oregon but gardened exclusively that way in the valley when I lived on the West side of the Cascades. But if you concentrate nutrients in the areas you plant you will get a good crop regardless of the techniques used. I think raised beds are more productive because they warm sooner, they hold heat through out the night and they give you the opportunity of using fertilizer and water exactly where you are growing.

### **BUYING SEEDS**

I have found seed catalogs a great way to spend winter months browsing and dreaming. You can buy most of your seeds locally. Ace Hardware carries a variety of seeds by Livingston with a sub title of Clearly More Seed. You do get more seed for less money from this company. If you watch the newspaper ads you will find other outlets that have seeds for sale, 40-50% off. You can get seeds that are Northwest varieties (Ed Hume, or Lily Miller,) and do as well as what you can order through the catalogs. The catalogs do occasionally have a newly developed variety I am tempted to try, so those occasional purchases keep me on their mailing lists. There are a few seed companies such as Territorial Seed or Nichols Nursery who have Northwest developed seeds. Neither of these two companies developed seeds specifically for Eastern Oregon as far as I know. Our short growing seasons, high elevations, summer

thunderstorms, and unexpected frosts do present special but not insurmountable challenges. Remember, watch that thermometer at night, if you are 40 degrees or lower by 9 pm, you will have a frost early morning. That can be mitigated by setting a sprinkler to start before dawn or covering things at night with garden blanket or cardboard boxes.

Generally you should buy fresh seed every year, but I admit I have seeds on hand for two years at a time, a holdover my days of living with my grandmother who was an avid gardener, canning about 200 quarts each of everything she grew. She had a ranch and fed ranch hands 3 meals a day during planting and harvest months. For what ever reason she kept a two year supply of seed in her root cellar.

### **WATERING THE GARDEN**

Again if we look to the OSU Extension Service's guidelines for watering the garden we find general rules to follow.

For the most part, I put the whole garden on a timed sprinkler system using hoses. This gives me freedom to be away in the summer time, but you have to check the beds regularly to be sure you are getting enough water into them. In the summer you may have to lay down up to 2.5 inches of water a week per bed to offset evaporative loss and heat. However in raised beds with plants close together, you may find evaporation loss to be less. You have to pay attention to how they plants look, and if you are getting some wilt, or if when checking the soil you find it too dry 4 inches deep or so then your water needs to be increased.

### **EXTENDING THE SEASON**

Getting through the occasional frost, I discussed earlier using garden quilt or timed sprinkling. When it comes to extending the harvest into the fall, I have found if you wrap tomato cages or stakes with garden quilt or plastic sheeting (keep a vent open at the top) you can often get a few more weeks out of your frost sensitive tomatoes or peppers. I have a small greenhouse and before the first killing frost I transplant leeks and celery into the greenhouse. I will also have seeded lettuce into the greenhouse beds in mid August as well as green onion, and cilantro.

I usually have a few potted herbs in the greenhouse as well such as parsley and basil. These will generally hold out until December in the unheated greenhouse.

You can also extend the season by using as mentioned above, sheep panels or pvc pipe bent over your beds and then covered with garden quilt or plastic. If you use plastic, it will overheat quickly even in the fall on sunny days. So it needs to be vented or opened up early each day.

While we have not covered every vegetable you can have success with, hopefully we have given you a few ideas to make gardening more successful in a challenging climate. I have listed below some places you can get supplies for use in the garden. If you don't find what you want, don't be shy about asking if they would consider carrying it. Often they will stock something customers ask for.

Resources: Garden quilts, cheapest resource I have found is Seeds of Change [www.seedsofchange.com](http://www.seedsofchange.com) 1-888-762-7333 toll free, and [www.gardeners.com](http://www.gardeners.com). Some local nurseries carry garden quilt including Redmond Greenhouse and CHS Garden Center in

Madras.

Sheep Panels : Ag-West in Madras, Big R in Redmond and other fencing stores in Prineville and Redmond will no doubt have them too.

Water timers: Ace Hardware Bi-Mart, Big R, and most other stores that carry garden supplies will have timers.

Seeds: Ace Hardware stores, Garden Centers, Round Butte Seed garden centers, most nurseries in the area, some large box stores. Also [www.nicholsgardennursery.com](http://www.nicholsgardennursery.com), [www.seedsofchange.com](http://www.seedsofchange.com) ,

Generally the best value so far has been Livingston seeds "Clearly More Seed" packets are less expensive and carry more seed. I have found seeds from here perform quite well in the garden. (carried locally by Ace Hardware stores) [www.livingstonseed.com](http://www.livingstonseed.com)

**BY NANCY PETERSEN**  
**[nfpeterse@aol.com](mailto:nfpeterse@aol.com)**

THANKS TO:

Oregon State University for the Water Tables PDF  
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**ASPARAGUS BED** requires less water, so it has its own watering system.



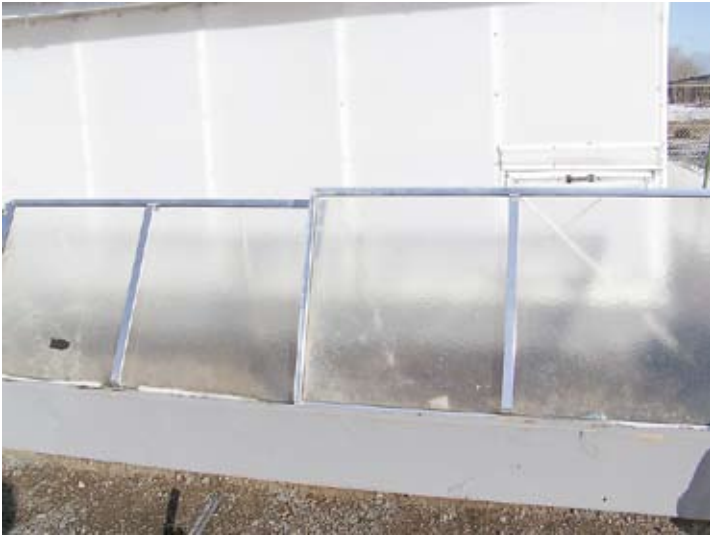
**HOMEMADE WALL O' WATERS** with gallon jug for keeping tomato/pepper plants warmer at night. New plants planted inside bottomless bucket can be protected when frost threatens by pinning a rug over the top at night.



**Bed with sheep panels** to hold garden blanket and old jugs storing water to keep bed warmth. Wall also collects heat daytime to release at night.



**Garden blanket over sheep panels** allows for earlier planting of lettuce, radishes, onions against a south wall.



**RAISED BEDS** against a wall with old shower doors to help raise heat in soil. The wall becomes a solar collector too.



**PLANTING** potatoes in 18"-24" pattern works well in raised beds.